DEPARTMENT OF
NATURAL RESOURCES

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**Memorandum**

September 8, 2017

**TO:** Naomi Gebo, Habitat Stewardship Specialist Shoreline District; Lindie Schmidt, Aquatic Easement Land Manager,

**FROM:** Abby Barnes, Outfall Planner

**SUBJECT:** Bremerton CSO OF-12 Outfall Review

The City of Bremerton (City) owns, operates, and maintains two wastewater treatment plants, West Plant and East CSO Treatment Plant, and is authorized under NPDES Permit WA-0029289. The West Plant is a secondary wastewater treatment plant that operates year round and treats wastewater from the entire City's sewer service area. During wet weather periods, the West Plant receives and treats combined sewage (sanitary sewage combined with storm water). The East Plant operates only during wet weather periods and treats combined sewage from east Bremerton. During wet weather periods, combined sewage from east Bremerton that exceeds the capacity of the conveyance system to the West Plant diverts to the East Plant.

A new 30-year Outfall Easement to authorize continued maintenance and operation of an existing Combined Sewer Overflow (CSO) outfall in the Port Washington Narrows by the City is in progress. OF-12 is one of 15 CSO outfalls associated with the Bremerton West & East Wastewater Treatment Plants and services the Anderson Cove basin, which encompasses a portion of northwest Bremerton, extending along the northwest shore of the narrows. The current outfall is a 24-inch reinforced concrete pipe that extends approximately 120 feet from the shoreline waterward of Ohio Avenue, just north of East Anderson Cove Park. The outfall appears to occur entirely on SOAL and is buried at least three feet below the substrate to the approximate line of extreme low tide (-4.5 feet MLLW). The outfall continues on the sediment surface beyond this point and discharges at a depth of approximately -7 feet at MLLW. Sediments in the discharge location are primarily sand and cobble with some shell hash. The age and condition of this outfall are unknown. However, construction plans provided indicate that the outfall has been replaced since initial installation. These plans also indicate that the original 18-inch RCP pipe was abandoned in place when the 24-inch pipe was installed. The location of the abandoned pipe appears to be just west of the active outfall. If the submitted construction drawings are accurate and an abandoned pipe is located here it should be included in the agreement. The agreement should either be large enough to encompass both pipe outfall structures or two separate agreements should be developed. If the abandoned pipe was removed, the City should provide documentation supporting that effort.

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It is the initiative of DNR to continue to protect and restore the Puget Sound. DNR appreciates the hard work and financial burden that the City has put into the upgrade of the sanitary sewer system and to reduce combined sewer overflows. This is a long and expensive process that needs to be ongoing and does have an end point of complete separation of the two systems (sanitary and stormwater). The receiving waters, Dyes Inlet, Sinclair Inlet and Port Orchard Pass in the Bremerton area have suffered water quality and sediment chemistry declines due to multiple reasons including federal operations, industrial activities, poor circulation within bays, and many other natural and anthropogenic contributors. A series of projects intended to reduce the frequency and volume of overflows from OF-12 were completed in 1999. No overflows have been reported at CSO OF-12 since 2000.

DNR worked with the Department of Ecology and the current NPDES Permit manager to perform sediment sampling at several CSO outfall locations, including OF-12. Sampling was completed at three locations near CSO OF-12 in Summer 2015. Insufficient material was recovered from sampling location OF-12-2 to perform adequate chemical analysis. A second round of sediment sampling took place in Summer 2017 and included one location at OF- 12 to provide better quantification of chemicals of concern that may be present in sediments at this location. There are no documented sediment quality impairments in the vicinity of the outfall but several cleanup sites are located nearby, including Anderson Cove, Old Bremerton Gasworks, and Evergreen Park.

The operations and activities that once polluted these areas are now much more closely controlled and regulated with the goals of cleanup, restoration, and preservation. Although it is understood that this pursuit of restoration and protection is an ongoing process, it does seem that extreme actions will need to be made in order to finally put an end to pollution causing activities. It has been shown by the recent sampling events that the quality of the sediment is suffering. Poor sediment quality has a domino effect on the habit by then creating degrading benthic health and aquatic vegetation and therefore providing very little habitat for forage fish and shellfish.

EPA has developed nine minimum controls that NPDES permittees with combined sewer systems should implement as part of their program. The nine minimum control measures are as follows:

1. Proper operation and maintenance
2. Maximum use of the collection system for storage
3. Review and modification of pretreatment requirements
4. Maximization of flow to the publically owned treatment works (POTW) for treatment
5. Prohibition of CSOs during dry weather
6. Control of solid and floatable materials in CSOs
7. Pollution prevention
8. Public notification of CSO occurrences and impacts
9. Monitoring on CSO impacts and efficacy of CSO controls. (See 59FR at 18691)

These measures are addressed in CSO communities' NPDES Annual CSO Reports. Often reporting on number 9 is vague, lacking relevant information, and not including the pertinent information needed. Under this control measure an analysis of how CSO events are affecting the community, habitat, and

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quality of impacted areas should be discussed, identifying the loss of natural resources in the affected areas. This reporting seldom discusses how CSO events are affecting the habitat and does not discuss the degradation of the environment, loss of recreation, or access to tribal fishing.

**Recommendations:**

It is the goal of the DNR Aquatics Outfall Program to restore and protect Puget Sound and to remove CSO pollution. The DNR Outfall Program recommends to develop a 10-year timeline with the City to reduce and ultimately eliminate any further CSO events at this outfall location and allow only stormwater discharge to occur. If timeline is not met and CSO events continue to occur, DNR reserves the right to request a natural resources damage evaluation. The evaluation would incorporate EPA minimum control measure number 9 and would include study questions such as (but not only):

- Total number of CSO events, frequency, and duration of CSOs for a specific receiving water body.
- Locations and designated uses of receiving water bodies.
- Water quality data for receiving water bodies and changes in water quality over a period of time.
- Water quality impacts directly related to CSO to include beach closing, floatables identified, wash-up episodes, fish kills, and natural resource degradation.
- Identify how the discharge of the combined sewer has closed shellfish harvesting areas and degraded forage fish habitat.

The new agreement should clearly outline the agreed upon timeline and an understanding that DNR will request further natural resources analysis in the area of CSO discharge.